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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,440	05/15/2001	Hiroataka Uchiyama	8084	9009

27752 7590 03/06/2003

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EXAMINER
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JONES, DWAYNE C

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 03/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/855,440

Applicant(s)

UCHIYAMA ET AL.

Examiner

Dwayne C Jones

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 September 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-45 are pending.
2. Claims 1-45 are rejected.

### ***Response to Arguments***

3. Applicants' arguments filed September 18, 2002 have been fully considered but they are not persuasive. Applicants make the following arguments. First, that the rejection over-claims 1-11 Trinh et al. of U.S. Patent No. 5,207,933 is unwarranted because the instant invention is directed to a composition suitable for capturing unwanted molecules that is comprised of (1) a functionally available cyclodextrin that has a concentration of at least about 0.001 %; (2) a cyclodextrin-incompatible surfactant and (3) a cyclodextrin-compatible surfactant. Applicant additionally argues that the water-insoluble protective matrix of Trinh et al. is a cyclodextrin-perfume complex, rather than the instantly claimed examples of a cyclodextrin-incompatible surfactant. Applicants next argue that there is no teaching in Trinh et al. relating to compositions with functionally available cyclodextrin and suitable for capturing unwanted molecules. Applicants allege that Woo et al. do not teach of including a cyclodextrin-incompatible surfactant.

4. Applicants' first argue that the rejection over claims 1-11 Trinh et al. of U.S. Patent No. 5,207,933 is unwarranted because the instant invention is directed to a composition suitable for capturing unwanted molecules that is comprised of (1) a

functionally available cyclodextrin that has a concentration of at least about 0.001 %; (2) a cyclodextrin-incompatible surfactant and (3) a cyclodextrin-compatible surfactant.

Trinh et al. disclose of a composition, which contains a functionally available cyclodextrins, such as alpha-, beta-, and gamma-cyclodextrins and mixtures thereof, just as the instant specification exemplifies these cyclodextrins, (see pages 3-7 of the instant specification). The instant invention provides examples of the broad term of cyclodextrin-incompatible surfactant as quaternary ammonium-containing compounds, (see pages 14-16 of the instant specification) just as Trinh et al. In addition, the instant specification provides examples of the broad term of cyclodextrin-compatible surfactant as glycerol 12-hydroxystearate monoester (see page 25, under section g) and siloxane surfactants such as those silicones such as polydimethylsiloxanes, (see pages 20-21 of the instant specification). Accordingly, as the instant composition is currently written, the prior art reference of Trinh et al. do teach of components, which fall under the scope of such broad terms as functionally available cyclodextrin, a cyclodextrin-incompatible surfactant, and a cyclodextrin-compatible surfactant.

5. Applicant next alleges that the water-insoluble protective matrix of Trinh et al. is directed to cyclodextrin-perfume complexes, rather than the instantly claimed examples of a cyclodextrin-incompatible surfactant. Trinh et al. discuss perfume complexes in columns 5-7. Trinh et al. teach that the "perfume complex is typically imbedded in the protective material so that it is effectively 'enrobed' or 'surrounded', (see column 8, lines 32-38). For these reasons, the protective material is different than the alleged perfume complex. In fact, Trinh et al. teach of the following examples, which are fatty alcohols or

fatty acid esters, namely glycerol 12-hydroxystearate monoester, and even polymerized hydrocarbons, (see column 9, lines 3-30). Accordingly, these components of Trinh et al. meet the instantly required components. Furthermore, applicants' claims recite the word "comprising", which is open-claim language. It is held "the word 'comprising' incorporates additional steps of procedures and does not exclude materials or processes not recited in the claim." see *Gould v. Mossinghoff, Comr. Pats.*, (DCDC 1982) 215 USPQ 310.

6. Applicants allege that Woo et al. do not teach of including a cyclodextrin-incompatible surfactant. The instant invention provides examples of the broad term of cyclodextrin-incompatible surfactant as quaternary ammonium-containing compounds, (see pages 14-16 of the instant specification) just as Woo et al., (see columns 20-23). Accordingly, as the instant composition is currently written, the prior art reference of Woo et al. do teach of components, which fall under the scope of such broad terms as functionally available cyclodextrin, a cyclodextrin-incompatible surfactant, and a cyclodextrin-compatible surfactant. Furthermore, applicants' claims recite the word "comprising", which is open-claim language. It is held "the word 'comprising' incorporates additional steps of procedures and does not exclude materials or processes not recited in the claim." see *Gould v. Mossinghoff, Comr. Pats.*, (DCDC 1982) 215 USPQ 310. For these reasons, Woo et al. does render the instant claims under the judicially created doctrine of obviousness-type double patenting as being unpatentable.

***Claim Rejections - 35 USC § 112***

7. The rejection of claim 43 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in response to the amendment of September 18, 2002.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al. in view of Laughlin et al. of U.S. Patent No. 3,959,461 in view of Bailey et al. of U.S. Patent No. 3,929,678 in view of Bailey et al. of U.S. Patent No. 3,299,112. Wilson et al. teach of the well-known property that cyclodextrins demonstrate a remarkable complexation behavior with a wide variety of inorganic and organic inclusates, (see page 927). In addition, Wilson et al. teach of binding constants between the inclusates and the cyclodextrin. In fact, Wilson et al. further teach of binding constants between beta-cyclodextrin and fluorocarbon as well as anionic surfactants, (see pages 927 and 928). Bailey et al. teach of the quaternary ammonium surfactants, (see abstract and entire patent). Laughlin et al. teach of detergent compositions that contain ethoxylated zwitterionic surfactants and anionic surfactants and even cationic surfactants, (see entire patent). Bailey et al. teach of the surfactants of organosilicon, (see columns 1 and 2). Wilson et al. teach of a composition, which contains cyclodextrin along with an anionic surfactant. Laughlin et al. teach of compositions, which contain ethoxylated zwitterionic surfactants and anionic surfactants and even cationic surfactants, while Bailey et al. teach of quaternary ammonium surfactants and Bailey et al. disclose of organosilicon surfactants. Due to the fact that it is well known that cyclodextrins are used to encapsulate inclusates and because Wilson et al. do teach of a composition which contains beta-cyclodextrin and fluorocarbon as well as anionic surfactants, (see pages 927 and 928), it would have been well within the

purview of the skilled artisan to include other surfactants in a composition which contains cyclodextrin. The skilled artisan would have been motivated to include other surfactants as an optimization in a cyclodextrin composition, especially when Wilson et al. teach of a composition between a beta-cyclodextrin and fluorocarbon as well as anionic surfactants, (see pages 927 and 928).

Furthermore, applicants' claims recite the word "comprising", which is open-claim language. It is held "the word 'comprising' incorporates additional steps of procedures and does not exclude materials or processes not recited in the claim." see *Gould v. Mossinghoff, Comr. Pats.*, (DCDC 1982) 215 USPQ 310. For these reasons, Woo et al. does render the instant claims under the judicially created doctrine of obviousness-type double patenting as being unpatentable.

### ***Obviousness-type Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

13. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

14. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).



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15. The rejection of claims 1-45 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 Trinh et al. of U.S. Patent No. 5,207,933 is maintained and repeated for both the above-stated and reasons of record. Although the conflicting claims are not identical, they are not patentably distinct from each other because Trinh et al. also teach of a composition which contains cyclodextrins, such as alpha-, beta-, and gamma-cyclodextrins and mixtures thereof; glycerol 12-hydroxystearate monoester; and various quaternary ammonium containing compounds; and silicones such as polydimethylsiloxanes, (see from column 4, line 65 to column 5, line 5, column 9, lines 3-29; see columns 13-16; see columns 19 and 20, respectively).

16. The rejection of claims 1-45 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of Woo et al. of U.S. Patent No. 5,942,217 is sustained for reasons of record and those stated previously. Although the conflicting claims are not identical, they are not patentably distinct from each other because the prior art reference of Woo et al. disclose of a composition which contains cyclodextrins, such as alpha-, beta-, and gamma-cyclodextrin, polysiloxanes, block copolymers, polymeric quaternary ammonium salts, (see claims 1-33 and columns 8-11 and 22).

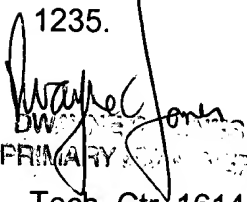
Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. C. Jones whose telephone number is (703) 308-4634. The examiner can normally be reached on Mondays through Fridays from 8:30 am to 6:00 pm. The examiner can also be reached on alternate Mondays

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel can be reached on (703) 308-4725. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

1235.

  
PRIMARY EXAMINER  
Tech. Ctr. 1614  
March 5, 2003